#### Message

From: MORASH, MELANIE [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C67B1B2EBFDF4795AA598EDA825F0589-MMORASH]

**Sent**: 10/11/2018 4:00:25 PM

To: Mora, Rebecca [Rebecca.Mora@aecom.com]; Shantal Der Boghosian [shantal.derboghosian@ngc.com]

CC: Shaffer, Caleb [Shaffer.Caleb@epa.gov]; Levine, Herb [Levine.Herb@epa.gov]; Holbrook, Holly

[Holly.Holbrook@aecom.com]

Subject: RE: EPA Comments - 2017 Annual Groundwater Monitoring and Remedial Progress Report for the Former TRW

Microwave Site

Thank you. Receipt acknowledged.

--Melanie

From: Mora, Rebecca [mailto:Rebecca.Mora@aecom.com]

Sent: Tuesday, October 9, 2018 10:39 AM

To: MORASH, MELANIE <morash.melanie@epa.gov>; Shantal Der Boghosian <shantal.derboghosian@ngc.com>

Cc: Shaffer, Caleb <Shaffer.Caleb@epa.gov>; Levine, Herb <Levine.Herb@epa.gov>; Holbrook, Holly

<Holly.Holbrook@aecom.com>

Subject: RE: EPA Comments - 2017 Annual Groundwater Monitoring and Remedial Progress Report for the Former TRW

Microwave Site

Hi Melanie,

Attached are our responses to EPA's comments on the 2017 Annual Groundwater Monitoring and Remedial Progress Report for the TRW Microwave Site. Per the responses, Figure 7 was modified and is also attached. Please let us know if you have any questions on the responses.

Once you review the responses, please let us know if they are approved and then we will submit a revised report.

Thank you very much!

Rebecca

#### Rebecca Mora

Senior Technical Leader/Project Manager, Environment D 714.689.7254 rebecca.mora@aecom.com

## A=COM

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Please consider the environment before printing this e-mail.

From: MORASH, MELANIE [mailto:morash.melanie@epa.gov]

**Sent:** Friday, August 24, 2018 8:03 AM **To:** Mora, Rebecca; Shantal Der Boghosian

Cc: Shaffer, Caleb; Levine, Herb

**Subject:** EPA Comments - 2017 Annual Groundwater Monitoring and Remedial Progress Report for the Former TRW Microwave Site

Dear Shantal and Rebecca,

Thank you for submitting the *Annual Groundwater Monitoring and Remedial Progress Report, Former TRW Microwave Site, 825 Stewart Drive, Sunnyvale, California* (Report), prepared by AECOM Inc. (AECOM), dated May 3, 2018. The Report was prepared on behalf of Northrop Grumman Systems Corporation (Northrop). The Report presents the results of the groundwater monitoring program and summarizes the remedial activities conducted at the TRW Site in 2017.

### **General Comments:**

EPA appreciates the groundwater monitoring work that Northrop and AECOM are conducting, in association with the long-term cleanup activities at the TRW Site. The Report's summary of the monitoring results of groundwater parameters indicates that remedial efforts continue to reduce contaminant mass at the TRW Site.

### **Specific Comments:**

- Section 3.1, Page 7, Second paragraph Groundwater movement in groundwater Zone B2 is reported to the
  northwest based upon the potentiometric surface presented on Figure 7. However, the orientation of
  channelized flow is shown as trending north/northeast, which is consistent with the elevated levels of
  trichloroethene (TCE) in well T-10C. The groundwater flow direction mentioned in the text and as depicted on
  Figure 7 should be toward the north/northwest consisted with the trends of the preferred pathways and similar
  to that described for hydrostratigraphic units (HSUs) A and B1.
- 2. Section 3.1, Page 7, Third paragraph Changes in groundwater elevations, as presented, have no relevance if such changes are an artifact of changes in the benchmark survey conducted in January 2018. <u>Stated changes in the elevation of the groundwater surfaces should reflect only subsurface conditions to allow for correct comparison of historical elevations.</u>
- 3. Section 3.2.1, Zone A Presented historical concentration ranges do not reference the time range. <u>EPA recommends adding the time range, similar to the discussion for Zone B1.</u>
- 4. Section 3.2.2, Page 11, EAB Parameters, Last full sentence <u>Clarify punctuation in sentence to eliminate stating that the injection wells were injected with low dissolved oxygen concentrations.</u>
- 5. Section 4.0, Page 13, Last bullet Clarify the statement to indicate that the referred activities have resulted in destruction of [some (or much) of] TCE mass associated with the former TRW Site source area. What amount of mass volume is being referred to?
- 6. Section 4.0, Page 14, First bullet The statement of the existence on-site of a viable ongoing mechanism for ongoing contaminant mass reduction appears to be contrary to the previous statement that low TOC concentrations and microbial populations do not support annual monitoring. Depleted organic carbon, very low DHC concentrations, detection of ethene only at trace concentrations, and increasing TCE concentrations at wells T-13A and T-14A indicate that mass reduction is not progressing. EPA understands that TCE concentrations in wells T-13A and T-14A are affected by the onsite migration of elevated TCE from an upgradient source. It is assumed that the intent of this bullet is to provide support of the proposed discontinuation of annual EAB monitoring. If so, EPA is open to discuss a reduction in annual EAB monitoring.
- 7. Section 4.0, Page 14, Recommendations, Fourth bullet <u>See EPA's August 24, 2018 set of technical comments regarding the proposed destruction of well T-9B.</u> Impact of the two gravel layers within the well screen should be explored further.

### **Figures and Tables Comments:**

- 1. Table 3 Please clarify in notes the data qualifiers, F1, F2, and H.
- **2.** Appendix C, Well T-9B results Two data lines above Oct-17 are identified as Jan-17 and another Jan-17. Please clarify this data.

### Next Steps:

Please review EPA's comments and submit a response-to-comments letter by October 31, 2018.

Sincerely,

Melanie

\_\_\_\_\_

Melanie Morash, Project Manager California Site Cleanup Section I, Superfund Division

US EPA Region 9 75 Hawthorne Street (SFD-7-1) San Francisco, CA 94105

(415) 972-3050 [phone] morash.melanie@epa.gov

### References:

AECOM, 2018, Annual Groundwater Monitoring and Remedial Progress Report, Former TRW Microwave Site, 825 Stewart Drive, Sunnyvale, California Well Installation Report, Former TRW Microwave Site, 825 Stewart Drive, Sunnyvale, California. May.

From: Rebecca.Mora@aecom.com [mailto:Rebecca.Mora@aecom.com]

Sent: Thursday, May 3, 2018 2:41 PM

To: MORASH, MELANIE < morash.melanie@epa.gov>

Subject: Submittal of the 2017 Annual Groundwater Monitoring and Remedial Progress Report for the Former TRW

Microwave Site

Rebecca Mora has sent you 1 file using AECOM's File Transfer System.

Rebecca Mora says:

On behalf of Northrop Grumman, this is an email from AECOM SendFiles for you to download the 2017 Annual Groundwater Monitoring and Remedial Progress Report for the Former TRW Microwave site (22MB file). This is not to be confused with the Well Installation Report sent earlier via email.

Please let us know if you have any issues downloading the report.

Thank you, Rebecca

This file will be available for download until 5/10/2018

File Description Size

2018-0503-Microwave-Annual GWM Report Final.pdf

22,321KB

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If you have any questions, please contact your project manager.